

Statement of Ana María Boitel
Chair
Women in Technology
Before the
Subcommittee on Science, Technology and Space
Committee on Commerce, Science and Transportation
United States Senate
July 24, 2002

Senator Wyden, Senator Allen, members of the Subcommittee on Science, Technology and Space, and congressional staff. I am pleased for the opportunity to present the thoughts and findings of Women in Technology ("WIT") with respect to the barriers confronting women in the field of technology, and girls who might have an interest if they had more opportunities.

Background

WIT was founded in 1994 by Valerie Perlowitz, an engineer who is founder and president of Reliable Integration Systems, a company based in the Tyson's Corner area of Northern Virginia. Ms. Perlowitz felt the lack of attendance and involvement on the part of women at many of the other technology organizations in the area. She put out the word that she would be hosting a reception in her office one evening, expecting about 40 women would attend. Instead, there were 100 women in attendance and WIT was born.

In the past eight years the organization has grown to over 700 members from the Metropolitan Washington area. WIT has expanded its programs and services to meet the needs of our variety of members. We now have Special Interest Groups to give Women Business Owners, Senior Executive Women, strict IT professionals, and Government Women in Technology a venue to meet and discuss issues with their counterparts.

We also started a Mentor/Protégé program several years ago so as to give the young women entering the field, as well as women who are re-entering the workforce after raising children, or who simply want to change careers, access to role models, mentors, and guidance.

Girls in Technology ("GIT"), another WIT sub-group, was started a few years ago when it was brought to our attention that there is a tremendous need for young girls to receive guidance and encouragement to stay interested in math and science. GIT supports programs that help and encourage girls to have fun with these subjects.

"Tech Savvy - Educating Girls in the New Computer Age," a study done by AAUW in 2000, which laid out all of the statistics about girls choosing not to go into computer related fields of study as early as middle school. For instance, nationally, only 17% of the children taking the AP Computer Science A exam are girls, and only 11% of those taking the AP Computer Science AB exam are girls. In Fairfax County public high schools, boys currently constitute 83% of AP computer science classes, 95% of network design courses, 75% of basic computer science courses, and 87% of network software operations classes.

Among the programs GIT supports are Empower Girls, Inc. and Horizons 2000.

Empower Girls, founded in December of 2001 by Eileen Ellsworth, former General Counsel of Best Software, after conducting two pilot programs in the spring of 2002. The first was an after school computer club for girls at Fairhill Elementary in Fairfax County, VA that ran from February to April. Thirty-three 4th and 5th grade girls signed up for the club in less than 24 hours. The club met once a week for 10 weeks from 3:30 to 5:00. The second pilot was an evening program for girls at the Reston Teen Center in Reston, VA. A "drop in" group of approximately 12 girls ages 12 to 16 met once a week for 8 weeks on Thursday evenings. Due to the success of these pilot programs, there are currently 12 elementary schools, 1 high school, and 2 Fairfax County teen centers that are interested in conducting Empower Girls programs this fall. Based upon interviews with administration in the 12 elementary schools, the level of interest in girls' computer clubs is very high. It is therefore anticipated that demand for these clubs will grow throughout in 2003. The feedback from parents and teachers of the girls who have gone through the pilot programs has been tremendously positive. The programs cost \$5,000 each to run.

Horizon 2000, run out of George Mason University by Dr. Cheryl Bartholomew, was started in 1999 to offer guidance and mentors to girls in the 5th and 6th grades to encourage their continuing interest in science, math and science. Unfortunately, under pressure from the Trustees of George Mason University, Dr. Bartholomew was forced to open the program to boys in 2000.

Barriers

In preparing this testimony over the last 24 hours, I spoke with several of our members to get their thoughts and experiences. The overwhelming consensus is that in most instances women are still culturally discouraged to excel in math and science. If all your friends are majoring in psychology, physics or engineering is a harder path alone. Therefore, if we can attract more young women to the technology fields, others will follow. It needs to become socially acceptable for a young woman to pursue a career in physics or engineering or chemistry.

The lack or scarcity of senior women role models is a large part of this. Having women in senior leadership roles in technology companies is critical to

demonstrating to young women that such a career goal is feasible and desirable. Yet we still see a very low percentage of women in the highest positions of corporate America, unless they have started their own companies. Mentoring shows young women the possibilities, and by highlighting success stories we inspire young women to pursue a career path in a technology field.

In addition, there is:

- A lack of knowledge of what scientists and engineers do
- A lack of successful examples of women engineers and scientists (other than astronauts and Marie Curie, and for some reason, many girls do not seem to connect to astronauts as role models)
- A lack of women professors in science and engineering departments of universities (note that in California, after passage of anti-affirmation legislation, only one woman professor was hired in the sciences or engineering within the UC system; in year previous to legislation 38 were hired).

Conclusions

There is a tremendous need for programs in the schools and through non-profit organizations that cultivate young girls to study, indeed enjoy, math and science; to have fun with computers; to be interested in learning.

There is a need for funding for these programs. When a program such as Empower Girls costs \$5,000 per, we are talking about relatively small amounts in exchange for a highly motivated work force.

There is much more that WIT can share with this committee, given more time for preparation. We offer our resources to the committee for any further interviews or information it may wish to pursue.